

AMENDMENTS TO THE SPECIFICATION

Please replace the second paragraph on page 1 with the following amended paragraph:

[0002] Application Serial No. 10/813,163, attorney's docket number A8698, entitled "MODULAR FIBER-BASED CHIRPED PULSE AMPLIFICATION SYSTEM," filed on same date herewith, the disclosure of which is hereby incorporated by reference;

Please replace the third paragraph on page 1 with the following amended paragraph:

[0003] Application Serial No. 10/813,173, attorney's docket number A8699, entitled "METHOD AND APPARATUS FOR CONTROLLING AND PROTECTING PULSED HIGH POWER FIBER AMPLIFIER SYSTEMS," filed on same date herewith, the disclosure of which is hereby incorporated by reference;

Please replace the fourth paragraph on page 1 with the following amended paragraph:

[0004] Application Serial No. 10/813,269, attorney's docket number A8700, entitled "FEMTOSECOND LASER PROCESSING SYSTEM WITH PROCESS PARAMETERS, CONTROLS AND FEEDBACK," filed on same date herewith, the disclosure of which is hereby incorporated by reference;

Please replace the fifth paragraph on page 1 with the following amended paragraph:

[0005] Application Serial No. 10/813,161, attorney's docket number A8732, entitled "ETCHED PLATE ALIGNMENT METHOD," filed on same date herewith, the disclosure of which is hereby incorporated by reference.

Please replace the third paragraph bridging pages 9-10 with the following amended paragraph:

Besides the methods of manipulating laser beam parameters described above to achieve desired results, the present invention also includes methods to achieve the thermal and physical enhancement of a material during laser processing. In an embodiment of the present invention, the background light (commonly referred to as Amplified Spontaneous Emission (ASE)) is controlled to provide a constant source of energy for achieving thermal and physical changes to enhance the machining by individual ultrashort pulses. ASE is often emitted simultaneously and co-linearly with the ultrashort pulse from an amplified fiber laser. Unlike conventional solid-state lasers, the beam profile of the ASE can match that of the ultrashort pulses. There are a number of ways to change the ASE ratio in the laser. Examples are changing the ultrashort pulse input energy into the amplifier, changing its center wavelength or changing the diode pump power to the amplifier. Another means more variable is within the compressor of the laser. As disclosed in Application Serial No. 10/813,163, attorney's docket number A8698, entitled "MODULAR FIBER-BASED CHIRPED PULSE AMPLIFICATION SYSTEM," filed on same date herewith, the disclosure of which is hereby incorporated by reference, the spectral output of the ASE can be designed to be at a different wavelength than that of the ultrashort pulse. Thus, in the compressor, where the spectral components are physically separated, a component can be placed to block or partially block the ASE, as disclosed in Application Serial No. 10/813,163, attorney's docket number A8698. The ratio between the ASE and the ultrashort pulse energy can be controlled to vary the amount of preheating applied to the target material. In another

embodiment of the invention, a pedestal of an ultrashort pulse is controlled. The pedestal is similar to a superimposed long-pulse with lower amplitude.